

WHITEPAPER

TRANSFORMING CUSTOMER SERVICE AUTOMATION WITH AGENTLESS CONTACT CENTERS

Guide to Automation Excellence



teneo.ai

TABLE OF CONTENTS

1. Introduction

- Overview of the global call center outsourcing market.
- Impact of automation and AI on future employment in the call center sector.

2. The Pivotal Role of Customer Service

- Importance of customer service in brand loyalty and retention.
- Role of AI in enhancing customer service effectiveness.

3. The AI Agent: A Cost-Effective Alternative

- Comparison of costs: Human agents versus AI agents.
- Long-term benefits and operational savings

4. The Rise of Agentless Contact Centers

- Evolution from human-supported to fully automated solutions.
- Natural Language Processing (NLP) and agent assist technology

5. Why Pursue an Agentless Contact Center?

- Strategic advantages of reducing human dependency.
- Key performance indicators (KPIs) for measuring effectiveness.

6. Operational Efficiency and Benefits

- Quantifiable impacts on cost and customer service metrics.
- Case studies highlighting the benefits in real-world applications.

7. Challenges in Transitioning to an Agentless Contact Center

- Managing change and technological adoption.
- Regulatory compliance and industry-specific considerations.

8. Key Performance Indicators (KPIs)

- Detailed discussion of metrics like FRT, AHT, FCR, and CSAT.
- How these metrics are optimized in an agentless environment.

9. Roadmap to an Agentless Contact Center

- Maturity levels in automation and AI integration.
- Steps for implementation from assessment to execution.

10. Case Studies

- Analysis of successes and lessons from companies like Swisscom, CSG/MSFT, Medtronic, Telefónica Germany, and HelloFresh.

11. Conclusion

- Summarizing the transformative potential of agentless contact centers.
- Final thoughts on achieving automation excellence in customer service.

12. Appendix

- Glossary of terms.
- Technical specifications and details of AI technologies used.

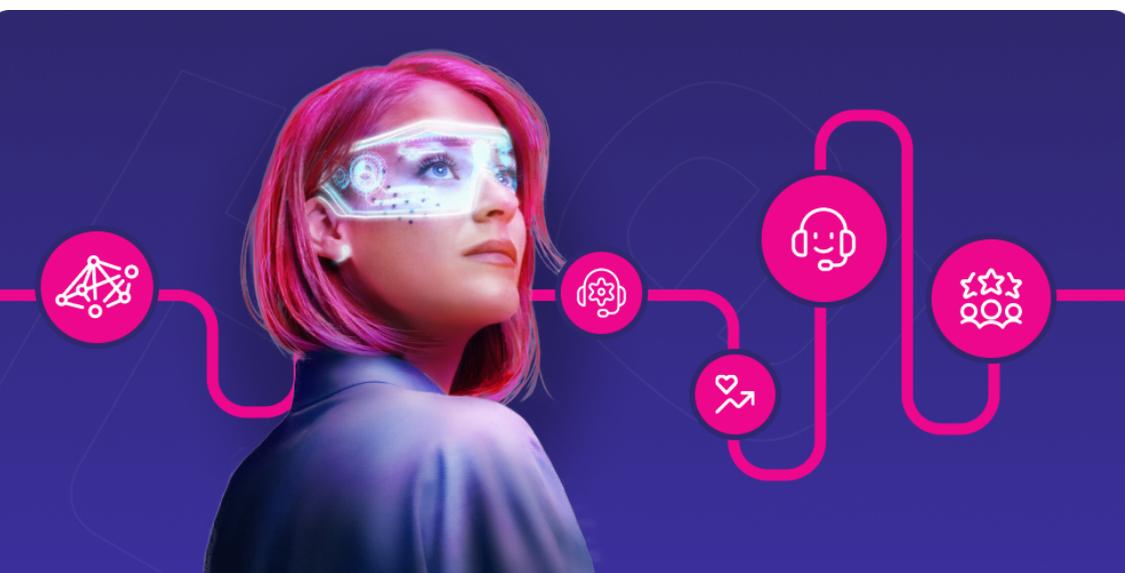


INTRODUCTION

Transforming Customer Service with Agentless Contact Centers: A Comprehensive Guide to Automation Excellence

The global call center outsourcing market is poised to reach a staggering USD 429.8 billion by 2028, driven by an insatiable demand for exceptional customer service, the widespread adoption of cloud-based call center solutions, and an increasing inclination toward outsourcing call center operations. According to a 2022 Statista report, the industry employs over 17 million people globally, with Asia Pacific leading call center employment, accounting for 44% of the global workforce.

As automation and artificial intelligence (AI) continue to evolve, the future employment landscape in the call center sector is uncertain. While certain call center jobs may become automated, the industry might also witness the emergence of new positions demanding advanced skills and knowledge.



THE PIVOTAL ROLE OF CUSTOMER SERVICE

Customer service plays a pivotal role in brand loyalty, with 95% of organizations, according to Microsoft's research, acknowledging its significance. **A study by American Express further emphasizes the impact of customer-centric services, indicating a 33% shift in brand preferences due to poor service. Personalized customer engagement strategies, maintaining an average of 89% customer retention, highlight the value of tailored approaches.**

Sustaining customer satisfaction is paramount for businesses, and artificial intelligence plays a crucial role in achieving this by providing an interactive platform and swift responses.

Conversational AI tools are projected to significantly reduce labor costs in contact centers by \$80 billion by 2026, offering a cost-effective alternative to traditional human-centric solutions.



THE AI AGENT: A COST-EFFECTIVE ALTERNATIVE

The average cost per query according to industry average is between \$2,70-\$5,60 in a traditional Agent based Contact Center. An AI Agent driven Contact Center averages at about \$0,30 per Query.

In contrast to the ongoing costs associated with maintaining a team of human agents, the deployment of AI Agents incurs primarily upfront costs in development, implementation, and maintenance. Although the initial investment may be higher, the long-term operational expenses of an AI Agent are generally lower. This cost advantage is a driving factor behind the increasing adoption of AI-based solutions in customer service, enabling businesses to enhance efficiency and reduce expenses.

For instance, consider the average monthly cost of a call center with 50 agents, encompassing salary and additional expenses, which stands at approximately 35.000 USD per agent and year. Assuming an agent dedicates around 15 minutes (including wrap-up time) for resolving each query and can manage 4 to 5 interactions per hour, each treated as a separate query, they could effectively resolve 36–40 queries in a day, totaling 720 queries per month and agent. Based on this, an agent-centric query solution would incur a resource cost of approximately \$4 per query. When incorporating the AI Agent into the contact center, all resource cost per query will be removed when the query is fully automated.

The [average cost per query according to industry average](#) is between \$2,70-\$5,60 in a traditional Agent based Contact Center. An AI Agent driven Contact Center averages at about \$0,30 per Query.

However, the introduction of AI offers a substantially more economical alternative, allowing organizations to achieve significant cost reduction and scale their customer experience (CX) without being reliant on human resources.

THE RISE OF AGENTLESS CONTACT CENTERS

Natural Language Processing (NLP) serves a dual role, not only benefiting customers but also offering indispensable support to agents during their work hours.

Agent assist-technology leverages the power of AI and machine learning, providing real-time suggestions and delivering relevant information to human agents across various industries, including telecom and retail. Its integration with existing contact center applications ensures seamless operation, facilitating faster onboarding for agents. The impact is far-reaching, enhancing the accuracy and efficiency of responses while ultimately elevating customer satisfaction and loyalty.

Looking ahead, contact centers worldwide are prioritizing key objectives such as **reducing staffing costs, improving overall efficiencies, increasing customer satisfaction, ensuring rapid access to information**, and having **business intelligence** readily available. Moreover, the demand for **faster delivery and payout** underscores the evolving landscape of customer service priorities.

In response to these evolving requirements and the dynamic digital era, innovations in AI and ML-based NLP technologies are reshaping the industry. This transformation signals a departure from conventional platforms like Contact Center as a Service (CCaaS) and Unified Communication as a Service (UCaaS). Instead, it paves the way for the emergence of Experience Communications as a Service (XCaaS) platforms, facilitated by best-of-breed accuracy to create excellent experiences.



WHY PURSUE AN AGENTLESS CONTACT CENTER (ACC)?

Organizations strive to deliver instant, high-quality service to outperform competitors while controlling costs through higher degrees of automation. An Agentless Contact Center offers several key advantages:

- **Customer Effort Score (CES):** Measures how easily customers can resolve their issues.
- **Cost of Service (CoS):** Tracks the total cost of serving customers.

Implementing an ACC ensures instant service availability, lowering CES and enhancing customer satisfaction. By automating L1 and L2 tasks, operational costs are significantly reduced, leading to a drastic decrease in CoS.

OPERATIONAL EFFICIENCY AND BENEFITS

Cost Savings

Automation reduces the Cost per Call (CPC) and overall CoS. By handling queries through AI, businesses can manage customer interactions more efficiently.

First Call Resolution (FCR)

Enhanced routing and automation improve FCR rates, positively impacting CES, tNPS, and CSAT. AI systems can resolve issues on the first contact more accurately and swiftly than human agents.

Average Handling Time (AHT)

Automated post-call activities decrease AHT. AI can manage follow-up tasks instantly, reducing the workload on human agents.

Conversational Intelligence

Data from all interactions is captured, providing valuable business insights. This intelligence can be used to refine and improve AI systems, leading to better performance over time.

CHALLENGES IN TRANSITIONING TO AN AGENTLESS CONTACT CENTER

Transitioning to an Agentless Contact Center (ACC) involves several challenges that organizations must address to ensure successful implementation and operation. Teneo, an advanced AI-driven platform, offers comprehensive solutions to these challenges, facilitating a smooth transition and optimizing the benefits of automation.

Change Management

Challenge

Transitioning to an ACC requires significant changes in processes, technology, and employee roles. Effective change management is crucial for program success, ensuring that all stakeholders are aligned and supportive of the transition.

Solution

Teneo provides robust change management support through its comprehensive implementation framework. This includes:

- **Training and Support:** Teneo offers extensive training programs for employees to help them understand and utilize the new AI systems effectively.
- **Communication Tools:** The platform includes communication modules that keep all stakeholders informed about the changes, progress, and benefits, fostering a positive attitude toward the transition.
- **Customized Onboarding:** Teneo tailors the onboarding process to meet the specific needs of different departments and roles, ensuring a smooth and personalized transition experience.



Customer Adoption

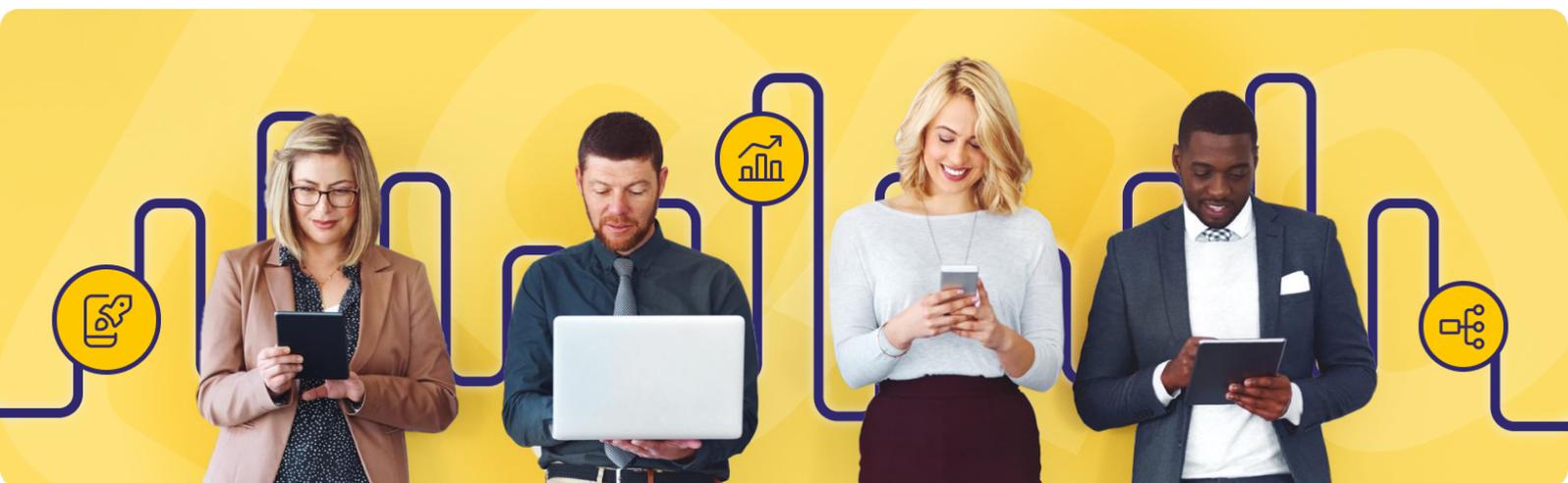
Challenge

Ensuring customers adapt to technology-driven interactions is essential. Initial resistance can be mitigated by demonstrating the value of automation and providing a seamless user experience.

Solution

Teneo excels in enhancing customer adoption through:

- **User-Friendly Interfaces:** Teneo's AI systems are designed with intuitive, user-friendly interfaces that simplify customer interactions, making it easy for users to adapt to the new technology.
- **Demonstrable Value:** The platform quickly showcases the benefits of automation, such as faster response times and higher accuracy in handling queries, which helps in gaining customer trust and acceptance.
- **Personalization:** Teneo's AI leverages customer data to provide personalized experiences, making interactions feel more human and tailored to individual needs, thus encouraging customer adoption.



Technology Maturity

Challenge

Aligning internal and external systems is necessary for seamless operation. This includes ensuring compatibility and readiness for AI integration.

Solution

Teneo addresses technology maturity challenges with:

- **Integration Capabilities:** Teneo is built to seamlessly integrate with existing systems, including CRM, ERP, and other enterprise applications, ensuring a smooth transition without disrupting current operations.
- **Scalability:** The platform is highly scalable, allowing businesses to gradually increase the level of automation as their technology maturity evolves.
- **Flexibility:** Teneo supports a wide range of communication channels and technologies, ensuring that it can meet the diverse needs of different industries and organizations.



Regulatory Compliance

Challenge

Adhering to data sensitivity, financial, medical advice, and AI regulations is critical. Each industry has unique compliance requirements that must be addressed.

Solution

Teneo ensures regulatory compliance through:

- **Compliance Framework:** Teneo incorporates a robust compliance framework that adheres to industry-specific regulations and standards including SO-27001 and SOC Type-2, ensuring that all automated processes meet legal and regulatory requirements.
- **Data Security:** The platform uses advanced encryption and security protocols to protect sensitive data, ensuring that customer information is handled with the utmost care and confidentiality.
- **Audit Trails:** Teneo provides comprehensive audit trails and reporting features, allowing organizations to track and document compliance efforts effectively.

Teneo offers a comprehensive solution to the challenges associated with transitioning to an Agentless Contact Center. By providing robust change management support, enhancing customer adoption, ensuring seamless technology integration, and adhering to regulatory compliance, Teneo enables organizations to successfully implement and benefit from AI-driven automation in their contact centers.

Discover how Teneo can transform your customer service operations.

[Book a meeting with our experts today.](#)

KEY PERFORMANCE INDICATORS (KPIs)

First Response Time (FRT)

Definition

First Response Time (FRT) measures the average amount of time a customer waits before receiving a response from a contact center. A lower FRT indicates that customer inquiries are being handled efficiently and promptly, enhancing customer satisfaction.

How Teneo Achieves Near-Zero FRT

- **Instantaneous AI Response:** Teneo's AI capabilities enable instant responses to customer inquiries, reducing wait times to nearly zero.
- **24/7 Availability:** Teneo operates around the clock, ensuring that customers receive immediate attention regardless of the time of day.
- **Multichannel Support:** Teneo can handle inquiries across various channels (e.g., phone, chat, email) simultaneously, ensuring prompt responses through all communication mediums.

Average Handle Time (AHT)

Definition

Average Handle Time (AHT) measures the average duration of a customer interaction, from the initial contact to the resolution of the query, including any post-call work.

How Teneo Reduces AHT

- **Efficient Query Handling:** Teneo quickly understands and resolves customer inquiries, reducing the time spent on each interaction.
- **Automated Post-Call Activities:** Teneo automates follow-up tasks such as data entry and customer follow-ups, further reducing the time agents need to spend on each call.
- **Advanced Routing:** Teneo's intelligent routing ensures that customer queries are directed to the right resource immediately, reducing time wasted on transfers with 30%.

First Call Resolution (FCR)

Definition

First Call Resolution (FCR) measures the percentage of customer inquiries resolved on the first contact without needing escalation or follow-up interactions.

How Teneo Enhances FCR

- **Comprehensive AI Knowledge Base:** Teneo leverages a vast and continually updated knowledge base within Teneo, as well as connecting to any available external data source containing knowledge needed to serve the request, including taking advantage of GenAI, LLM's and RAG, to provide accurate and complete answers during the first interaction.
- **Contextual Understanding:** Teneo's AI understands the context and intent of customer queries, ensuring precise and relevant responses that resolve issues promptly.
- **Integrated Systems:** By integrating with various backend systems, Teneo can access all necessary information and execute backend activities, to resolve queries without the need for escalation.

Generative AI

- **Enabling Enterprise use of GenAI:** The nature of GenAI today, including GPT 4, and GPT-4o is highly consumer oriented. To really take advantage of these services, there is a need to put an enterprise platform like Teneo that guardrail and control these resources.



Cost per Call (CPC)

Definition

Cost per Call (CPC) calculates the average cost associated with handling a customer interaction, including labor, technology, and operational expenses.

How Teneo Minimizes CPC

- **Reduction in Labor Costs:** Teneo automates many tasks traditionally handled by human agents, significantly lowering labor costs. Also see A cost effective alternative.
- **Scalability:** The platform can handle large volumes of interactions without proportionally increasing costs, optimizing resource utilization.
- **Operational Efficiency:** Teneo's automation and intelligent management of inquiries reduce the overall operational expenses, contributing to a lower CPC.

Customer Satisfaction Score (CSAT)

Definition

Customer Satisfaction Score (CSAT) is a metric that measures the overall satisfaction of customers with a company's service, typically gathered through post-interaction surveys.

How Teneo Improves CSAT

- **Prompt and Accurate Responses:** By easily accessing back-end customer information, Teneo provides quick and correct answers, significantly enhancing the customer experience.
- **Personalized Interactions:** Teneo's AI personalizes interactions based on customer data, creating a more engaging and satisfactory experience.
- **Consistent Service Quality:** Teneo ensures a high level of consistency in service quality, which positively impacts customer satisfaction.

Net Promoter Score (NPS)

Definition

Net Promoter Score (NPS) gauges customer loyalty and their likelihood of recommending the service to others, measured through a simple survey question.

How Teneo Increases NPS

- **Reliable First Contact Resolution:** High FCR rates achieved by Teneo lead to higher customer satisfaction and loyalty.
- **Enhanced Customer Experience:** By delivering seamless, efficient, and satisfactory interactions, Teneo builds customer trust and promotes positive word-of-mouth.
- **Continuous Improvement:** Teneo learns from every interaction, continually improving the service quality and customer experience, which in turn boosts NPS.

Quantified Benefits

Teneo has demonstrated significant improvements in various KPIs through its implementations:

- **Cost of Service (CoS):** [Achieved a \\$39M ROI](#)
- **Full Self-Serve (Call Containment):** [Achieved 60% containment](#)
- **AHT Reduction:** [Reduced AHT by 2 minutes](#)
- **CSAT:** [Increased customer satisfaction scores](#)
- **tNPS:** [Improved transactional NPS by 18 points for Swisscom](#)
- **Wait Time:** [Reduced wait times by 37%](#)
- **CPC:** [Reduced Cost per Call from \\$25 to under \\$14](#)

ROADMAP TO AN AGENTLESS CONTACT CENTER

Maturity Levels

Transitioning to an Agentless Contact Center (ACC) is a step-by-step process that evolves through various maturity levels. Each level represents a stage of technological and operational advancement towards full automation.

Level 0: Traditional IVR Systems

- **Description:** At this initial stage, organizations rely on traditional Interactive Voice Response (IVR) systems that handle basic routing and menu options but lack automation.
- **Capabilities:** IVR systems provide pre-recorded responses and route calls based on keypad inputs. There is no AI integration or automated handling of tasks.
- **Limitations:** High dependency on human agents for query resolution, limited scalability, and higher operational costs.

Level 1: Basic Catch and Dispatch with No Automation

- **Description:** This level involves basic call routing without automation. Human agents receive and manage all customer interactions.
- **Capabilities:** Simple routing based on caller input, with manual handling of calls by agents.
- **Limitations:** Inefficiencies due to lack of automation, longer handling times, and increased operational costs.



Level 2: 50% of Level 1 Tasks Automated

- **Description:** At this stage, organizations start automating routine tasks that were previously handled by human agents.
- **Capabilities:** Automation of common, repetitive tasks such as answering frequently asked questions and initial data collection.
- **Benefits:** Reduction in average handle time (AHT) and cost per call (CPC), improved efficiency, and enhanced first response time (FRT).
- **Challenges:** Requires initial investment in AI technology and integration with existing systems.

Level 3: Advanced Automation with Backend Integrations and Generative AI

- **Description:** This level involves more sophisticated automation, including backend system integrations and the use of generative AI for complex tasks.
- **Capabilities:** Advanced AI can handle complex interactions, retrieve and update information from backend systems, and provide personalized responses.
- **Benefits:** Significant improvements in first call resolution (FCR), customer satisfaction score (CSAT), and operational efficiency.
- **Challenges:** Ensuring seamless integration with backend systems and maintaining high levels of data security and compliance.

Level 4 (ACC): Full Automation of L1 and L2 Tasks with Human-Like Decision-Making Capabilities

- **Description:** At the highest maturity level, the contact center achieves full automation of Level 1 and Level 2 tasks, with AI capable of human-like decision-making.
- **Capabilities:** AI manages and resolves most customer interactions without human intervention, escalates only the most complex issues to human agents, and provides consistent, high-quality customer service.
- **Benefits:** Maximum operational efficiency, lowest cost per call (CPC), highest customer satisfaction and loyalty (CSAT and NPS), and 24/7 availability.
- **Challenges:** Maintaining and continuously improving AI capabilities, addressing any remaining customer adoption barriers, and ensuring regulatory compliance.



IMPLEMENTATION STEPS

Achieving an Agentless Contact Center requires a structured approach, including a thorough assessment, detailed planning, and careful execution.

1. Maturity Assessment

- **Evaluate Current Systems:** Assess the existing contact center infrastructure, technology stack, and operational processes.
- **Analyze Customer Experience:** Understand the current customer journey, identify pain points, and gather feedback.
- **Identify Gaps:** Highlight areas that need improvement or are suitable for automation.

2. Planning

- **Develop a Comprehensive Plan:** Create short, mid, and long-term plans covering architecture, technology requirements, business impact, change management, and skills development.
- **Architecture Planning:** Design a scalable and flexible architecture that supports current and future AI capabilities.
- **Technology Selection:** Choose the right AI tools, platforms, and integration solutions to meet your specific needs.
- **Change Management Strategy:** Develop strategies to manage the transition, including communication plans, training programs, and stakeholder engagement.
- **Skill Development:** Identify and address skill gaps, ensuring that employees are prepared to work with new technologies.
- **Stakeholder Impact:** Define short, mid and long term impact on both external and internal stakeholders

3. Execution

- **Implement Quick Wins:** Start with initiatives that deliver immediate business value and build momentum for the larger transformation.
- **Pilot Programs:** Run pilot programs to test and refine AI solutions, gather feedback, and make necessary adjustments.
- **Scale Up:** Gradually scale up automation efforts, continuously monitor performance, and make data-driven improvements.
- **Continuous Improvement:** Regularly review and optimize the AI systems, processes, and customer interactions to ensure ongoing success.

Program Team

A successful transition to an Agentless Contact Center requires a dedicated program team with diverse competencies. Key roles include:

- **Business sponsor:** a person or group within an organization who provides resources, support, and strategic direction for the program.
- **Program Manager:** Oversees the entire transition process, ensuring alignment with business goals and timely execution.
- **AI Specialists:** Develop and refine AI models, ensuring they meet the required performance standards.
- **Integration Engineers:** Handle the integration of AI systems with existing backend systems and ensure seamless data flow.
- **Change Management Experts:** Manage the human aspect of the transition, ensuring effective communication and training.
- **Compliance Officers:** Ensure that all processes and technologies comply with relevant regulations and data protection standards.
- **Customer Experience Analysts:** Continuously analyze customer feedback and interaction data to refine and improve the AI solutions.

By following this roadmap, organizations can effectively transition to an Agentless Contact Center, leveraging the power of Teneo's advanced AI technologies to achieve unparalleled efficiency, cost savings, and customer satisfaction.

CASE STUDIES

Swisscom

Swisscom, a leading telecommunications provider, successfully implemented Teneo's AI solutions to enhance their customer service operations. By leveraging Teneo's advanced capabilities, Swisscom achieved a significant increase in transactional Net Promoter Score (tNPS) by 18 points. The solution handled over 9 million calls annually in four languages, showcasing Teneo's versatility and efficiency in a multilingual environment.

CSG

CSG, projected an impressive \$39M return on investment (ROI) by deploying Teneo's AI solutions. The implementation resulted in a 30% reduction in misrouted calls and a decrease in average handle time (AHT) by 2 minutes. These improvements highlight the significant operational efficiencies and cost savings achieved through Teneo's advanced automation capabilities.



A Global Healthcare Leader

A global leader in medical technology, utilized Teneo's AI to enhance their contact center performance. The company saved \$6M in costs, reduced call handling costs by 20%, and decreased wait times by 37%. These outcomes demonstrate Teneo's effectiveness in optimizing customer service operations in the healthcare sector.

Telefónica Germany

Telefónica Germany improved their IVR resolution rate by 6% with the help of Teneo's AI solutions. The system handled over 900,000 monthly calls and 200,000 text requests, illustrating Teneo's ability to manage high volumes of interactions efficiently and accurately.

HelloFresh

HelloFresh, a global meal kit delivery service, automated 30% of their chat interactions using Teneo's AI solutions. This automation significantly reduced customer support costs while maintaining high levels of customer satisfaction. Teneo's AI seamlessly handled routine inquiries, allowing human agents to focus on more complex tasks.

By examining these case studies, readers can gain valuable insights into how Teneo's advanced AI solutions have transformed customer service operations across various industries. These real-world examples demonstrate the tangible benefits and substantial ROI that organizations can achieve by transitioning to an Agentless Contact Center.

Adopting an Agentless Contact Center powered by Teneo promises transformative benefits in customer service automation. By following the outlined roadmap and leveraging case studies as benchmarks, organizations can achieve unprecedented efficiency, cost savings, and customer satisfaction.

APPENDIX

Definitions

- **Agent Support Levels**
 - **Level 1 Support (L1):** Initial support level for simple general and product-related questions.
 - **Level 2 Support (L2):** Handles more complex and niche type tickets that requires more skilled agents.
 - **Level 3 (SME):** Senior professionals with broad knowledge of a particular industry and/or client.

Regulatory Considerations

- Data Sensitivity within GDPR regulation
- Financial Advice
- Medical Advice

AI Act

This comprehensive guide aims to provide a detailed overview of the transition to agentless contact centers, offering insights into the benefits, challenges, and strategic steps involved. By understanding and implementing these elements, organizations can achieve significant advancements in customer service excellence through automation.

Get Started With Advanced NLU Solutions Today

Embrace the future of customer interactions with Teneo's cutting-edge Natural Language Understanding technology. Our whitepaper has laid out the transformative potential of NLU and TLML in achieving unprecedented accuracy and efficiency in customer service operations, whether through text or voice-based interactions.

If you're ready to elevate your customer service capabilities and harness the power of the highest accuracy NLU technology on the market, we invite you to explore further. Discover how Teneo can transform your business operations, enhance customer satisfaction, and drive significant ROI.

[LET'S TALK!](#)